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Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, D.C. 20554

FCC 93-351

DISPATCHED BY

In the Matter of

Redevelopment of Spectrum to
Encourage Innovation in the
Use of New Telecommunications
Technologies

)
)
) ET Docket No. 92-9 ✓
)
) RM-7981
) RM-8004

Third Report and Order and Memorandum Opinion and Order

Adopted: July 15, 1993;

Released: August 13, 1993

By the Commission: Commissioner Barrett issuing a statement.

INTRODUCTION

1. By this action, the Commission is adopting a plan that will provide for the fair and equitable sharing of 2 GHz spectrum by new services and the existing fixed microwave services that currently use these frequencies, and for the relocation of existing 2 GHz facilities to other spectrum where necessary. The plan that we are adopting herein is intended to provide licensees of services using emerging technologies with access to 2 GHz frequencies in a reasonable timeframe, and at the same time prevent disruption to existing 2 GHz operations and minimize the economic impact on the existing licensees. By this action, the Commission also addresses several petitions for clarification and reconsideration of its earlier decisions in this proceeding.¹

2. The plan we are adopting provides separate relocation policies for frequencies to be used by licensed emerging technology services and those to be used for unlicensed devices. For licensed services, we are providing a fixed two year period commencing with the Commission's acceptance of applications for services that use new technologies. During this period we

¹ See Petitions for Clarification and Reconsideration filed by American Public Power Association (APPA), Apple Computer, Inc. (Apple), Pacific Telesis Group (Telesis) and the Utilities Telecommunications Council (UTC). These parties request reconsideration or clarification of issues addressed in the First Report and Order in this proceeding that involve the involuntary relocation of existing 2 GHz facilities and the exemption of public safety 2 GHz fixed facilities from involuntary relocation. See First Report and Order and Third Notice of Proposed Rule Making, ET Docket No. 92-9, 7 FCC Rcd 6886 (1992).

encourage but do not require negotiation over the terms of relocation. After this fixed period expires, an emerging technology licensee may initiate a one year period for mandatory negotiations between the fixed microwave licensee and the emerging technology licensee. For unlicensed devices, we are adopting a single one year mandatory negotiation period that will commence with the initiation of negotiations by manufacturers of unlicensed devices or their representatives. For both licensed services and unlicensed devices, after expiration of the mandatory negotiation period involuntary relocation of the fixed microwave facilities may be sought if agreement is not reached by the parties. In all instances of involuntary relocation the emerging technology provider will be required to pay all costs associated with the relocation.

3. Finally, existing 2 GHz public safety facilities are exempt from mandatory relocation, provided that the majority of communications carried on these facilities are directly used for police, fire, or emergency medical services operations involving safety of life and property. The facilities within this exception are those Part 94 facilities currently licensed on a primary basis under Section 90.19 Police Radio Service; Section 90.21 Fire Radio Service; Section 90.27 Emergency Medical Radio Service; and Subpart C of Part 90, Special Emergency Radio Services. As an additional safeguard, current licensees of other Part 94 facilities licensed on a primary basis under the eligibility requirements of Part 90 Subparts B and C may request similar treatment upon demonstrating that the majority of the communications carried on those facilities are used for operations involving safety of life and property.

BACKGROUND

4. In the First Report and Order and Third Notice of Proposed Rule Making (First R&O/Third Notice) in this proceeding, we reallocated 220 megahertz of spectrum between 1.85 and 2.20 GHz for future communications services and devices that employ emerging technologies.² In making this allocation, we adopted a plan for reaccommodation of existing 2 GHz fixed microwave users

² The specific services that will use this spectrum will be authorized in concurrent and future proceedings addressing specific services that use emerging technologies. The first of these proceedings addresses personal communications services (PCS), see Notice of Proposed Rule Making and Tentative Decision, GEN Docket No. 90-314 and ET Docket No. 92-100, 7 FCC Rcd 5676, Erratum, 7 FCC Rcd 5779 (1992), First Report and Order, FCC 93-329, released July 23, 1993.

in higher frequency bands.³ This plan was intended to provide for reaccommodation of existing 2 GHz fixed operations in a manner that will be advantageous to the licensees of the existing fixed operations, not disrupt those communications services, and foster introduction of new services and devices.

5. The reaccommodation plan encourages existing 2 GHz licensees to negotiate voluntary relocation agreements. We emphasized, however, that all existing fixed microwave operations will retain co-primary status with new services and devices. If an emerging technology service or unlicensed device manufacturer needs an existing 2 GHz facilities frequency, the parties are encouraged to negotiate a voluntary relocation agreement. Should they fail to reach agreement, the emerging technology service provider or unlicensed device manufacturer could request involuntary relocation of the existing facility. In such a case, the emerging technology service provider must:⁴

- 1) Guarantee payment of all costs of relocating to a comparable facility. Relocation costs include all engineering, equipment, and site costs and FCC fees, as well as any reasonable additional costs.
- 2) Complete all activities necessary for placing the new facilities into operation, including engineering and frequency coordination.
- 3) Build and test the new microwave (or alternative) system.

Finally, existing 2 GHz fixed microwave operations licensed to the public safety and special emergency radio services were exempted from the involuntary relocation process.

6. We sought comment on the length of the period to provide only for voluntary negotiated relocations. We also sought comment on the definition of comparable facilities; whether a negotiated rule making might be beneficial in defining comparable facilities; and on a dispute resolution process for cases where disagreements arise over involuntary relocation or comparability.

³ Multipoint Distribution Service (MDS) licensees operating on MDS channel 2, or successful applicants for channel 2 that filed applications prior to January 16, 1992, are authorized to operate in the 2160-2162 MHz band on a primary basis, see First Report and Order, supra note 1, 7 FCC Rcd 6886 at note 22.

⁴ See First R&O/Third Notice, supra note 1, at para. 24.

DISCUSSION

Transition

7. In the First R&O/Third Notice, we solicited comment on the length of a period for voluntary negotiation during which relocation of incumbent fixed microwave facilities would be accomplished only by the mutual agreement of the fixed microwave operator and the emerging technology provider authorized to operate in the same spectrum in the same geographic area. We stated that such a period would allow introduction of new services and unlicensed devices and provide for the relocation of the incumbent licensees without undue disruption to the incumbent licensees' services. We suggested that between 3 and 10 years may be appropriate for such a voluntary negotiation period. We also requested comment on whether no voluntary period would be appropriate in some instances, particularly in the case of unlicensed devices. We requested comment on whether affected fixed users should be given priority access to government spectrum or other 2 GHz spectrum if they cannot be accommodated in higher bands. We proposed that the voluntary period commence on the adoption date of a report and order that addresses channeling of the higher fixed microwave bands available for the relocation of incumbent 2 GHz fixed microwave licensees.⁵ We also requested comment on whether we should establish a minimum time period for voluntary negotiations after the grant of a license to an emerging technology service provider, such as one year.

8. Transition Framework. Most parties generally support the Commission's expressed concern that the needs of incumbent 2 GHz fixed microwave licensees be balanced with those of emerging technology providers. However, no consensus appeared on the length of time voluntary agreements should be the sole method of relocation and when involuntary relocation should be permitted after the voluntary process has not resulted in an agreement. At the extremes, some parties representing potential emerging technology providers argue that involuntary relocation should be available immediately, or within three years.⁶ Others argue for an exclusive voluntary negotiation period of up to 15 years before involuntary relocation could be considered.

⁵ See Further Notice of Proposed Rule Making, ET Docket No. 92-9, 7 FCC Rcd 6100 (1992).

⁶ See American Personal Communications (APC) at 7, Apple at 8, and Personal Communications Network Services of New York, Inc. at 14.

9. Several emerging technology proponents argue that no voluntary period is required because protections afforded incumbents ensure that they will not be harmed. Such protections include requirements that incumbents have all their expenses for an entire new system paid by the new provider.⁷ Others argue for a short voluntary period on public policy grounds. These parties state that permitting involuntary relocation early in the process as a remedy to stalled or unsuccessful negotiations would hasten the introduction of new services, prevent incumbent users from extracting windfall profits from new providers, and encourage investment in new technologies.⁸ They also argue that a longer voluntary period would frustrate pent-up demand for new services, jeopardize America's world leadership position, and cost the U.S. economy billions of dollars.⁹

10. On the other hand, a number of fixed microwave licensees argue for longer periods before permitting involuntary relocation, typically from 5 to 10 years, with some requesting up to 15 years.¹⁰ Incumbents argue that a longer period is needed during which the only mechanism for relocation is voluntary agreements to ensure that incumbents have reasonable time to negotiate before being subjected to involuntary relocation. This would give companies that recently have purchased new equipment time to recoup their investment,¹¹ to ease migration difficulties in geographic areas where suitable spectrum is scarce, and to ensure a seamless, disruption-free relocation to other bands.¹²

11. Emerging technology proponents that support some minimum period before permitting involuntary relocations generally argue that the voluntary period should begin upon the

⁷ See Cox Enterprises, Inc. at 4-7, Telesis at 1-3, and Telocator at 7.

⁸ See Ameritech at 3 and APC at 4-7.

⁹ See Time Warner Telecommunications (Time Warner) at 5-10.

¹⁰ See American Gas Association (AGA) at 2-3, American Petroleum Institute (API) at 4-7, Association of American Railroads (AAR) at 14-17, and Idaho Power Company (Idaho Power) at 1.

¹¹ Idaho Power states that a 15 year period is needed because microwave radios are being replaced on a 15 year cycle and the best time to move is when equipment is being replaced. See Idaho Power at 1.

¹² See APPA at 3-5, AGA at 2-3, API at 8-9, and GE American Communications, Inc. at 4-5.

adoption of the instant decision, or upon adoption of channeling plans for the higher fixed microwave bands.¹³ They argue this would avoid unnecessary delay in implementing new services. Incumbents supporting longer fixed periods argue for a "rolling" or "sliding" period that would commence with the date a license or construction permit is issued for an emerging technology facility.¹⁴ They argue that some reasonable period of time is needed to engineer a move due to the complexities and difficulties of migration. Some incumbents also argue for a one year voluntary negotiation period after an incumbent has been notified in writing by an emerging technology licensee.¹⁵

12. Finally, Personal Communications Network Services of New York, Inc. (PCNS) argues that instead of providing for involuntary relocation, the Commission should set a fixed date, after which incumbents would be reduced to secondary status but permitted to apply for a waiver to continue on a primary basis.¹⁶ PCNS states that this alternative scheme would provide greater incentive for successful voluntary negotiations and place the burden on the incumbents to demonstrate why relocation is infeasible.

13. Transition for Licensed Emerging Technology Services. In considering transition mechanisms for licensed services, we observe that the 2 GHz fixed microwave bands support important communications providing vital services to the public. We consider it essential that the process not disrupt the communications services provided by the existing 2 GHz fixed microwave operations. We continue to believe that in most cases in which relocation is necessary voluntary negotiations will be successful and will result in the least disruptive means for accommodating new emerging technology services in this spectrum.

14. We are concerned, however, that a lengthy period during which no mechanism is available to resolve stalled or failed negotiations to remove an impasse created by an uncooperative party could delay implementation of new services unreasonably. Undue delay would be inconsistent with the public interest in

¹³ See United States Telephone Association (USTA) at 3 and APC at 7. Inasmuch as the channeling plan was adopted today in a Second Report and Order in this proceeding, the time is identical under either proposal.

¹⁴ See APPA at 3 and Lower Colorado River Authority (LCRA) at 14-18.

¹⁵ See Ameritech at 5 and Southern Natural Gas Company at 2-4.

¹⁶ See PCNS at 7-8.

fostering and implementing new services that utilize emerging technologies as quickly as possible.

15. We conclude that providing two periods that must expire before an emerging technology licensee may proceed to request involuntary relocation is the best way to proceed. The first is a fixed two year period for voluntary negotiations commencing with our acceptance of applications for emerging technology services. During this period the parties are encouraged to negotiate and reach agreement on relocation, but are not required to do so. The second is a one year mandatory negotiation period starting anytime after the two year voluntary period upon the written request to an existing 2 GHz licensee by an emerging technology licensee to negotiate relocation terms. During this period parties are required to negotiate in good faith.

16. We believe that these voluntary and mandatory negotiation periods provide a reasonable balance between the need to ensure orderly relocation of fixed microwave facilities where necessary to permit provision of emerging technology services and the national interest in facilitating development of new technologies and services. An initial two year period will prevent disruption of the existing 2 GHz services. The one year mandatory negotiation period ensures that an incumbent licensee will not be faced with a sudden or unexpected demand for involuntary relocation if an emerging technology provider initiates its relocation request after the two-year initial period. These periods provide adequate time for fixed microwave licensees to prepare for relocation and encourage good faith and fair voluntary negotiations. Finally, we note that incumbents subject to involuntary relocation will have the entire relocation cost paid by the emerging technology service provider.¹⁷ They will not incur the cost of the relocation, and in fact will benefit to the degree that aging equipment using older technology may be replaced with new equipment using state-of-the-art technology.¹⁸

¹⁷ Indeed, the success of this negotiation and relocation process is not so dependent on the time periods as on the availability and provision of replacement facilities. As discussed later, if comparable facilities cannot be provided, even those licensees subject to involuntary relocation cannot be required to relocate.

¹⁸ Because replacement equipment must be provided at no cost to existing licensees, concerns for amortizing or recouping investment in existing equipment are misplaced. Such replacement equipment will operate during the original amortization period that would have applied to the old equipment.

17. Further, these periods permit incumbent licensees to continue using these bands in areas where spectrum is not sought for emerging technologies. A significant number of fixed microwave facilities, particularly in rural areas, may remain in the band and not be subject to relocation for a substantial period of time where the spectrum is not requested by an emerging technology licensee. Finally, by spreading out the initial relocation process, the demand on engineering and equipment resources needed to accomplish the relocation will be spread over a number of years. This will facilitate resolution of the complexities and difficulties of relocation.

18. We are not adopting PCNS' suggestion that all incumbent facilities be made secondary to emerging technology services on a fixed date. While this might encourage the negotiation process, it potentially could unduly disrupt the existing 2 GHz services. If our framework based on voluntary negotiations and relocation is unsuccessful, however, we may be requested to revisit this issue or revisit our role in this process.

19. Transition for Unlicensed Devices. The parties generally argue that relocation of facilities currently operating in spectrum identified for unlicensed devices should be handled separately.¹⁹ Most representatives of existing 2 GHz licensees and emerging technology proponents agree that many unlicensed devices, such as personal and household wireless telephones and wireless data systems, will be nomadic in nature and will tend to be moved across geographic regions without regard to potential interference to existing microwave systems.²⁰ Because of the expected nomadic nature of these devices, the parties generally agree that it is not feasible to consider sharing spectrum between existing fixed microwave facilities and new unlicensed devices sold to the public, and conclude that it will be necessary to clear in its entirety spectrum identified for such devices.²¹

¹⁹ In the Notice of Proposed Rule Making in GEN Docket No. 90-314, supra note 2 at para. 41-45, the Commission proposed to allocate 1910-1930 MHz for unlicensed PCS devices. Such devices might include advanced cordless phones that are used around the home or office and computer devices that communicate with other computer devices through a local area network.

²⁰ There may be some unlicensed devices that are not particularly nomadic in nature, such as wireless PBXs, and therefore there may be opportunities for some class of devices to share spectrum with the incumbent fixed microwave operations.

²¹ See Apple at 8-10, API at 11-12, Telocator at 13-14, Rolm at 2, Telesis at 1-3, Omnipoint Communications, Inc. (Omnipoint) at 5, and North American Telecommunications Association at 4-9.

20. Proponents argue that to facilitate the introduction of unlicensed devices, the involuntary period for relocation of incumbent licensees should begin immediately upon the effective date of the allocation order. They state that clearing spectrum identified for unlicensed devices will take a significant period of time, and unlike licensed services, such devices cannot begin to be marketed until clearing has been accomplished on a wide scale.²² Apple Computer, Inc. (Apple) argues that the investment required to develop and implement unlicensed devices will not be made unless there is some assurance of return on that investment and that long delays in gaining access to unencumbered frequencies may have a significant and perhaps irreversible negative effect on the development of unlicensed personal communications services (PCS).²³ Rolm states that a voluntary period of more than one year will be detrimental to the unlicensed PCS industry and that the developers and manufacturers of unlicensed equipment will reevaluate the economic viability of this market if it is encumbered with unreasonable transition times.²⁴

21. Even though most licensees of existing fixed microwave operations favor a separate transition framework for spectrum designated for unlicensed devices, they nevertheless argue that there should be a period for voluntary negotiations to facilitate agreements on relocation with incumbent licensees.²⁵ The Association of American Railroads (AAR) even suggests that the Commission issue a further notice proposing specific details of a plan for unlicensed devices, stating that parties have mentioned establishment of a consortium to facilitate relocation of microwave incumbents.²⁶

22. Not all parties support a separate transition plan, however. The Utilities Telecommunications Council (UTC) argues that there is no need to adopt a plan for spectrum identified for unlicensed devices separate from that for licensed services because all new service providers have the same obligation to negotiate and pay for the relocation of incumbent facilities.²⁷ UTC concludes that a minimum five-year voluntary period should

²² See Apple at 8, APC at 8, and Telocator at 13-14.

²³ See Apple Reply at 3.

²⁴ See Rolm at 3-4.

²⁵ See API at 11-13 and AAR at 17-18.

²⁶ See AAR at 17-18 and LCRA Reply at 28; see also note 30, *infra*.

²⁷ See UTC at 21-24.

apply for all 2 GHz relocation negotiations, whether for licensed services or unlicensed devices.

23. We conclude that the inherent differences between licensed and unlicensed use of the spectrum require different regulatory treatment. Therefore, we will provide a one year period for negotiations to relocate incumbent fixed microwave facilities operating in spectrum allocated for unlicensed devices. The one year period will commence when an unlicensed equipment supplier or representative initiates a written request for negotiation with a specific licensee. During this period both parties are required to negotiate in good faith over relocation terms and we encourage them to reach voluntary negotiated agreements to relocate incumbent facilities.

24. Our licensing records indicate there are slightly over 400 incumbent facilities licensed in the spectrum proposed for unlicensed devices in the PCS proceeding,²⁸ of which roughly 20 percent appear to be within the public safety exemption discussed below. We anticipate that it will take at least three years to reach voluntary or involuntary agreements with the existing licensees in this spectrum and to move their facilities.²⁹ Additional time may be required if more than the proposed 20 megahertz is allocated for use by unlicensed devices. Recognizing that the entire band must be cleared of the incumbents to avoid potential interference before most unlicensed devices may be marketed generally, we believe that mandating a longer voluntary period would unduly lengthen the time before most unlicensed devices could be marketed.

25. We do not believe it necessary to issue a further notice as suggested by AAR, because we have a sufficient record before us in this proceeding to address the general transition framework for unlicensed devices. The specifics of paying for the relocation of incumbent facilities in connection with unlicensed PCS devices, including the possible creation of a consortium, is being addressed in the PCS proceeding, GEN Docket No. 90-314, and may be addressed in future proceedings that address spectrum for other unlicensed devices.³⁰

²⁸ See the Commission's Master Frequency File for a listing of current assignments in this band.

²⁹ UTC states that after agreement on details, a reasonable estimate of the time required to complete a single microwave station relocation is 15 months. See UTC at 20-21 and Reply at 29.

³⁰ On May 14, 1993, the Unlicensed PCS Ad Hoc Committee for 2 GHz Microwave Transition and Management (UTAM) filed with the Commission its "Report and Recommendations," which proposed a

26. As indicated above, we exempted existing 2 GHz fixed microwave operations used for public safety services from involuntary relocation.³¹ Apple states that there can be no sharing of frequencies between fixed microwave services and unlicensed PCS devices that are, by design, capable of being used at any location.³² Therefore, it argues, rather than foreclose operation of unlicensed PCS devices and lose the substantial benefits of the services they provide, the Commission should apply the processes for involuntary relocation to public safety licensees operating in spectrum identified for such devices. Rolm also argues that by exempting a category of microwave users, the Commission has severely handicapped the implementation of unlicensed products and services nationwide.³³ It claims that the exemption may eliminate the benefits of unlicensed devices in certain geographic regions and reduce the market potential for organizations having nationwide interest.

27. We agree with the commenting parties that it may be impractical for fixed microwave licensees to share spectrum with unlicensed devices, and therefore that it may be impractical to protect incumbent public safety licensees in spectrum allocated for such devices. As stated above, we feel it is important, even vital, to provide for unlicensed PCS devices. Therefore, we believe that it is in the best interest of all parties that facilities licensed in this spectrum be relocated. We urge public safety licensees to engage in the negotiation process and to conclude voluntary relocation agreements. If we find that the voluntary relocation process is unsuccessful or is thwarting the general introduction of unlicensed devices in this spectrum, we would reconsider our reliance on voluntary negotiations or even possibly address directly the merits of particular cases.³⁴

method of managing and funding the voluntary relocation of incumbent licensees to facilitate the introduction of unlicensed PCS. The Commission accepted the "Report and Recommendations" as late comments in GEN Docket No. 90-314, supra note 2, and requested comments, see Public Notice, "Comments Invited on Industry Proposal for Unlicensed PCS 2 GHz Transition GEN Docket No. 90-314," May 18, 1993.

³¹ See First R&O/Third Notice, supra note 1, at para. 26; paras. 43-52, infra.

³² See Apple at 5-6.

³³ See Rolm at 2-3.

³⁴ The one year mandatory negotiation period is that amount of time before the Commission may become involved in resolving a dispute.

28. To facilitate the spectrum being made available for operation of unlicensed devices, Apple proposes that incumbent facilities in any unlicensed band be relocated to another portion of the 2 GHz fixed microwave band if they cannot be moved elsewhere easily.³⁵ Apple argues this would speed the process of making spectrum available for unlicensed devices. American Personal Communications (APC) and UTC opposed this approach, arguing that relocating to another part of the 2 GHz band might require additional relocation by a new service licensee authorized to use that spectrum.³⁶ Further, they argue that many of the incumbents that use a channel in the band proposed for unlicensed PCS devices (1910-1930 MHz) do so because other 2 GHz microwave channels are unavailable.

29. We believe that Apple's proposal to relocate incumbent microwave facilities elsewhere within the 2 GHz band has considerable merit with respect to exempted public safety facilities operating in any band identified for unlicensed devices. It should be clear that we urge the operators of such facilities to negotiate voluntarily with providers of emerging technologies and services in the interest of clearing incumbent microwave operations as promptly as possible from any portion of the 2 GHz band allocated for use by unlicensed devices. Especially since public safety facilities are not affirmatively required to relocate, we wish to ensure that they have every possible incentive to relocate voluntarily. Thus, we wish to clarify that the special status of public safety facilities confers a right to remain within the 2 GHz band, but not necessarily at the exact frequency they currently occupy. In some circumstances, it may be possible to move public safety operations to new frequencies within the 2 GHz band at relatively low cost.³⁷ We do not believe this approach is feasible for other fixed microwave facilities, since in most cases the incumbent licensee could ultimately be required to move to another band. Any intervening relocation would increase the overall cost of relocating the incumbent fixed microwave facilities; it would increase the cost to licensed emerging technology providers by increasing the number of fixed microwave

³⁵ See Apple at 7.

³⁶ See APC at 8-9 and UTC at 24.

³⁷ We note that in many instances changing to a different frequency within the 2 GHz band may be relatively inexpensive because the existing microwave equipment could be retuned to the new frequency, and the antenna tower and feedline could continue to be utilized. As with the relocation of other incumbents to higher frequency bands, unlicensed emerging technology/PCS service providers will pay fully for the retuning and other costs associated with the modification of the public safety facilities.

facilities that they may have to pay to relocate; and it would burden incumbents with two relocations instead of one. We will, therefore, authorize relocation within the 2 GHz band only of incumbent public safety facilities, and only if an adequate showing is made that such a relocation will not adversely affect the operations of the public safety incumbent, or any other fixed microwave incumbent or emerging technology/PCS licensee.³⁸

Use of Government Spectrum for Relocation

30. In the First R&O/Third Notice, we requested comment on the feasibility of using government spectrum for the relocation of existing 2 GHz operations, including whether fixed users operating on frequencies allocated for unlicensed services should be given priority access to government spectrum. We also stated that our staff is working with the National Telecommunications and Information Administration (NTIA) to establish procedures to accommodate in the adjacent government fixed band at 1710-1850 MHz those non-government 2 GHz fixed microwave facilities that technically cannot be accommodated in higher bands. On August 11, 1992, NTIA released a report, "Feasibility of Relocating Non-Government Fixed Systems into the 1710-1850 MHz Band" ("NTIA Feasibility Report") concluding that in the 1710-1850 MHz band there is sufficient spectrum in many areas of the United States to accommodate a limited number of non-government 2 GHz microwave links.³⁹ NTIA further stated that it will cooperate with the Commission to provide spectrum in the 1710-1850 MHz band for relocating fixed microwave links that cannot operate reliably at 6 GHz, establish technical rules and coordination procedures necessary to identify such links, evaluate the feasibility of relocation in the 1710-1850 MHz band, and if feasible, implement such relocation.⁴⁰

³⁸ This approach might be feasible, for example, in areas where only limited PCS service is envisioned, and where the equipment of an incumbent public safety operator is capable of being retuned to a specific portion of the emerging technology/PCS band. Relocation under this procedure into the licensed portion of the 2 GHz emerging technology/PCS band will not be permitted until the licensing process has been completed and the written consent of any emerging technology/PCS licensee obtained.

³⁹ NTIA Report 92-286. This report was placed in the ET Docket No. 92-9 in August, 1992.

⁴⁰ See Letter dated August 11, 1992, from the Assistant Secretary for Communications and Information, U.S. Department of Commerce, to the Chairman of the FCC. This letter accompanied the "NTIA Feasibility Report."

31. All of the commenting parties that address this issue support use of the government band to reaccommodate incumbent fixed microwave facilities.⁴¹ Most state that the government spectrum should be used to accommodate fixed microwave facilities that require long paths that cannot adequately or economically be realized using alternative media or higher frequency fixed microwave bands.⁴² Several parties argue that priority should be given to existing 2 GHz public safety facilities or existing 2 GHz facilities that need to be reaccommodated from spectrum allocated for unlicensed devices.⁴³

32. As noted above, NTIA has agreed to provide limited, conditional access to government spectrum on a case-by-case basis. The Commission staff is continuing to work with NTIA to make government spectrum available for relocation of existing 2 GHz operations. Further, we believe NTIA will make a good faith effort to accommodate as many of the links recommended for relocation by the Commission as possible. We will request that special consideration be given to reaccommodating links that are technically difficult to accommodate elsewhere; including those that operate in bands allocated for unlicensed services, those of public safety services, and those that require long paths. We believe that this approach will provide a safety net for those licensees operating difficult communications paths.⁴⁴

Comparable Facility Definition and Involuntary Relocation Process

33. In the First R&O/Third Notice we requested comment on defining comparable facilities and on the process to resolve disputes over involuntary relocation, or over comparability of service on new microwave facilities in relocation bands.

⁴¹ See API at 24-26 and AAR at 10.

⁴² See Central and South West Services, Inc. (CSW) at 21-22 and Questar Service Corporation (Questar) at 21-23.

⁴³ See APC at 8, Apple at 6-7, and Rolm at 3.

⁴⁴ We note that pursuant to Public Law 103-66 enacted on August 10, 1993, the Secretary of Commerce must identify and transfer to the Commission not less than 200 megahertz of government spectrum for non-government use. All of the spectrum to be transferred must be below 5 GHz, and one-half must be below 3 GHz; not less than 50 megahertz of the 200 megahertz must be recommended for immediate reallocation within six months of enactment, 25 megahertz of which must be below 3 GHz. While it is possible that spectrum in the 1710-1850 MHz band may be used to satisfy this requirement, it would be premature to base our decision herein on that possibility.

Specifically, we sought comment on the possible use of negotiated rule making for determining definitions of comparability and on dispute resolution ~~alternatives such as mediation and~~ arbitration.

34. Some incumbents argue that comparable facilities must equal or be superior to existing facilities in system reliability, capacity, speed, bandwidth, throughput, overall efficiency, and interference protection.⁴⁵ Other definitional means mentioned by parties include comparable facilities as defined by the incumbent licensee, as defined through a negotiated rulemaking, and as defined by a standards body such as the Telecommunications Industry Association.⁴⁶

35. On the other hand, a number of parties, both incumbents and emerging technology providers, oppose an inflexible standard. These parties argue that comparable facilities should be defined on a case-by-case basis by the interested parties, and that differences should be resolved by alternative dispute resolution methods such as mediation or arbitration.⁴⁷ They argue that these methods will provide flexibility in negotiations, whereas inflexible standards would impair the process because comparable facilities will be unique for each individual system due to the many variables involved with system design and operation. These parties conclude that defining comparable facilities therefore will have to be developed on a case-by-case basis rather than detailed in regulations.⁴⁸

36. Our goal is to facilitate rapid implementation of new services in the emerging technology bands. We believe that this can be accomplished best by providing flexibility in the relocation process. A number of different design factors will vary in importance in each incumbent's system, and therefore we agree with those parties arguing that adopting an inflexible definition of comparable facilities for general application is inadvisable. Although we decline to adopt a specific definition of comparable facilities and allow the parties in each case to negotiate mutually agreeable terms for determining comparability, in any case brought to the Commission for resolution we will use as our benchmark that comparable facilities must be equal to or superior to existing facilities. To determine comparability we

⁴⁵ See API at 20-21 and AAR at 20.

⁴⁶ See AGA at 4, Time Warner at 18-20, and Southwestern Bell Corporation at 2-3.

⁴⁷ See Edison Electric Institute (Edison) at 4-5, PCNS at 12-13, USTA at 2-3, and UTC at 3-7.

⁴⁸ See, e.g., Southern Natural Gas Company at 4.

would consider, inter alia, system reliability, capability, speed, bandwidth, throughput, overall efficiency, bands authorized for such services, and interference protection.

37. With regard to the alternative dispute resolution process, commenting parties generally agree that such a process would facilitate the voluntary negotiation process but do not agree on selecting mediation or arbitration as methods.⁴⁹ Some parties suggest that we could incorporate both mediation and arbitration procedures from the Administrative Dispute Resolution Act (ADRA) to resolve disputes between parties.⁵⁰

38. We agree that disputes resulting from relocation negotiations can be resolved best through individual mediation and arbitration efforts rather than Commission adjudication. This approach is consistent with the Commission's commitment to use alternative dispute resolution (ADR) techniques to expedite and improve our administrative process whenever feasible and consistent with our statutory mandate.⁵¹ Resolution of such disputes entirely by the Commission adjudication processes would be time consuming and costly to all parties. Therefore, we strongly encourage parties unable to voluntarily conclude a relocation agreement to employ ADR techniques.

39. If negotiations are unsuccessful during the periods defined above, the parties may refer the matter to the Commission for resolution. We fully expect that parties coming before the Commission will have clearly defined differences on specific issues, after having engaged in bona fide negotiations that have

⁴⁹ Mediation was supported by API, APPA, and Telocator; arbitration was supported by Associated PCN Company, AAR, Idaho Power, and Rolm. AGA, The Montana Power Company, and Questar stated that disputing parties should choose between the two. Edison and CSW argue that mediation should be used first, followed by binding arbitration if mediation fails.

⁵⁰ 5 U.S.C. § 518 et seq. (1992).

⁵¹ See Use of Alternative Dispute Resolution Procedures in Commission Proceedings and Proceedings in which the Commission is a Party, 6 FCC Rcd 5669 (1991). Information regarding the use of alternative dispute resolution is available from the Commission's Designated ADR Specialist, ADR Program, Office of the General Counsel, Federal Communications Commission, 1919 M Street, N.W., Washington, D.C. 20554, Telephone (202) 632-6990, facsimile (202) 632-0149.

included utilizing mediation or arbitration.⁵² In resolving disputes, the Commission will take the action it deems appropriate, either on the license of the incumbent or the authority of the emerging technology provider.

Tax Certificates

40. In the First R&O/Third Notice we sought additional comment on employing tax certificates as a means of encouraging fixed microwave operators to relocate.⁵³ All parties addressing this issue support use of tax certificates for this purpose.⁵⁴ U S West, Inc. (U S West) states that while under the Internal Revenue Code the exchange of like kind property ordinarily is not a taxable event, the availability of tax certificates would remove the impact of any uncertainty. Further, U S West argues that issuing tax certificates is appropriate because a certificate simply allows a recipient to defer payment of tax on a gain that the recipient would not have incurred but for the Commission's new policy.⁵⁵

41. U S West argues that the Commission has the legal authority to issue tax certificates because criteria specified by the Internal Revenue Code authorizing the Commission to issue tax certificates in connection with the sale or exchange of property will be met.⁵⁶ Namely, the sale or exchange is "necessary or appropriate to effectuate a change in a policy of, or the adoption of a new policy by, the Commission;" and the sale or exchange relates to "the ownership and control of a radio broadcasting station," as interpreted by the Commission when it authorized use of tax certificates related to certain cellular radio situations in Telocator Network of America.⁵⁷ U S West

⁵² We will presume that the parties have negotiated in good faith if they voluntarily have engaged in mediation or arbitration. Prior to final Commission resolution of a matter referred to it, an incumbent may continue to operate under its current authority.

⁵³ See First R&O/Third Notice, supra note 1, at para. 37.

⁵⁴ See, e.g., Edison at 6, GTE Service Corporation at 8, U S West at 1-8, AGA at 4, Telocator at 15-17, NYNEX Corporation (NYNEX) at 8-9, and U.S. Small Business Administration at 7-8.

⁵⁵ See U S West at 3.

⁵⁶ See Internal Revenue Code of 1954, 26 U.S.C. §1071.

⁵⁷ 58 RR 2d 1443 (1985), recon. dismissed, 1 FCC Rcd 509 (1986).

argues that the first criterion obviously is met. With regard to the second criterion, the Commission previously has used tax certificates in non-broadcast settings and, to its knowledge, the Internal Revenue Service (IRS) has not challenged the Commission's action. The American Gas Association also supports tax certificates, but believes that the Commission may have to obtain approval from the IRS for such a plan.⁵⁸

42. We believe that tax certificates would further our policy of encouraging voluntary agreements to relocate fixed microwave facilities to other bands or other media during the fixed two year period. They would remove the possibility of any financial disincentive to relocate if a 2 GHz fixed user may be deemed to have received a capital gain under the tax laws due to new facilities acquired to implement the relocation. In Telocator, the Commission broadly interpreted its authority to issue tax certificates, as defined in Section 1071 of the IRS Code, to include services other than a radio broadcasting station in order to further the Commission's pro-competitive policies.⁵⁹ As in our tax certificate policy to cover certain cellular radio transactions set forth in Telocator, we find it in the public interest to grant tax certificates to incumbent fixed microwave operators to facilitate voluntary agreements during the fixed two year period effectuating our new policy of providing 2 GHz spectrum for emerging technology providers, who will provide competition to existing licensees in other services. Accordingly, we are authorizing the grant of tax certificates for any sale or exchange of property in connection with voluntary agreements for the relocation of fixed microwave facilities during the fixed two year period.

Petitions for Clarification and Reconsideration

43. American Public Power Association (APPA), Apple, Pacific Telesis Group (Telesis), and UTC petitioned for reconsideration or clarification of certain issues resolved in the First R&O.⁶⁰ APPA and UTC request clarification of language

⁵⁸ See AGA at 4.

⁵⁹ 58 RR 2d at 1450 ("we conclude that the phrase 'radio broadcasting station' is illustrative of the more general congressional intent to facilitate the effectuation of the Commission's policies rather than restrictive, and the scope of the phrase is properly construed as expanding with the extension of the Commission's pro-competitive policies").

⁶⁰ See Petitions for Clarification or Reconsideration filed by APPA, Apple, Telesis, and UTC in ET Docket No. 92-9, on November 30, 1992. Apple amended its petition on January 13,

used to describe the class of licensees exempted from involuntary relocation. Specifically, they ask whether non-public safety operations of state and local government licensees are included in the exemption. Apple requests that we hold the transition rules in abeyance until the voluntary negotiation period, standards for comparable alternative facilities, and the dispute resolution process issues have been resolved. Telesis requests that the cost of removal and disposal of existing facilities be included as part of the compensation that emerging technology providers must pay in relocating an incumbent's facilities. It also requests that we provide the option for incumbent fixed microwave licensees to do their own relocation work, if they so desire, and be compensated by the emerging technology provider. UTC requests that we not require incumbent microwave facilities to relocate to non-microwave replacement facilities unless the incumbent agrees to do so. UTC also requests that we clarify that the new facility will be a private communications system owned and controlled by the incumbent microwave licensee and that the incumbent licensee has the right to oversee the engineering, construction, and testing of its microwave replacement facilities.

44. Issues related to timing, the process for determining comparable alternative facilities, and the dispute resolution process all are resolved above, and therefore Apple's request to delay implementation of the transition rules until these matters are resolved is moot.⁶¹ With regard to the petitioners' concerns about costs, oversight, and responsibility relating to replacement facilities, our decision to allow comparable alternative facilities to be defined by the affected parties, as provided above, in the context of a relocation agreement permits the parties to determine who will build and test the new facilities. With regard to removal of existing facilities, the rules require emerging technology licensees to pay all costs

1993.

⁶¹ Apple also contends that the transition rules adopted in the First R&O violate the Administrative Procedure Act (APA) because the APA requires that substantive rules be published in the Federal Register not less than 30 days before their effective date; yet "material portions of the transition rules have not been published or served because they do not exist." (Apple at 3.) With respect to this argument, Apple has not identified any rule that was improperly made effective less than 30 days after Federal Register publication. The fact that the Commission indicated in the First R&O/Third Notice that it could adopt additional rules in the future does not make the adopted rules invalid.

associated with an involuntary relocation.⁶² This includes the cost of removing existing facilities, as well as other types of costs that may be involved in relocation.

45. With regard to type of replacement facilities and ownership, we stated in the First R&O/Third Notice that using fiber optic or satellite facilities are viable alternatives for some systems and encouraged their use where practicable. However, we did not require conversion to alternative media, and have provided sufficient spectrum to accommodate relocation of 2 GHz licensees to higher frequencies.⁶³ We are not requiring the relocation of an incumbent fixed microwave facility to alternative media. Further, we are not implying that incumbents should cede any ownership or operational responsibility of new replacement microwave facilities.

46. Both APPA and UTC request clarification of the exemption from involuntary relocation. These parties argue that the exemption should apply to all state and local government licensees rather than be limited to strictly public safety organizations.

47. NYNEX Corporation (NYNEX) argues that all local government use of microwave is not for public safety and that the exemption should apply only to essential public safety services. It contends that non-essential uses should be subject to relocation.⁶⁴ Omnipoint Communications, Inc. (Omnipoint) also argues that, contrary to UTC's and APPA's assertion in their petitions, it clearly is the Commission's intent to exempt only public safety and emergency service licensees.⁶⁵ Omnipoint argues that the Commission's concerns for exempting involuntary relocation were directed primarily to the "economic" burdens that would be placed upon police, fire, and other public safety agencies because unlike public power agencies, they are not revenue-generating entities and rely almost entirely upon budgets derived from taxpayers for their operating funds. Further, APC notes that local government and public safety licensees comprise a large percentage of the incumbents in major markets. It argues that to allow all entities licensed in other services that are eligible as public safety and local government licensees to be exempt from relocation would unjustifiably expand the number of exempt facilities. Finally, a number of parties argue that

⁶² See First R&O/Third Notice, supra note 1, at para. 24.

⁶³ Id., at para. 19.

⁶⁴ See NYNEX at 3-4.

⁶⁵ See Omnipoint Communications, Inc. Comment to Petitions for Reconsideration at 3-4.

because it appears that sharing is not possible, particularly between unlicensed devices and fixed microwave operations, public safety licensees should not be exempted from involuntary relocation.⁶⁶

48. On the other hand, a number of existing 2 GHz licensees argue that we should clarify that the exemption includes all local government organizations, including all public power systems.⁶⁷ They argue that special economic and operational considerations applicable to public safety licensees apply equally to public power systems. The Public Safety Microwave Committee states that the Commission clearly intended to include all state and local government licensees and the term "public safety" should be defined as it is in Part 90 of the Commission's rules to include local government, police fire, highway maintenance, forestry-conservation, and emergency medical services.⁶⁸ Further, UTC states that the Commission's Chief Engineer stated in a letter to Senator Alan Cranston that incumbent state and local government licensees could continue their operations in this band indefinitely on a primary basis.⁶⁹ UTC also argues that the Commission should explicitly exempt from mandatory relocation all incumbent licensees that are eligible under the public safety radio service but that are currently licensed under another radio service. These licensees would include state or municipal utilities that hold a license under the industrial radio service. It states that requiring such licensees to amend their station license would appear to impose an inefficient and unnecessary burden on licensees and on the Commission's licensing staff.

49. We agree that the language in the First R&O/Third Notice may not have clearly identified the entities that we intend to exempt from involuntary relocation. Moreover, the Commission's license eligibility standards for private operational fixed microwave licenses allow flexibility in determining under which radio service an entity may be licensed.⁷⁰ For example, some entities, such as public utilities owned by state or local governments, are eligible to

⁶⁶ See e.g., Ameritech at 6-7, Apple at 6-7, and Rolm at 2-3.

⁶⁷ See LCRA at 10-11, Plains Electric at 1, and UTC at 3.

⁶⁸ See Public Safety Microwave Committee Comment to Petition for Clarification and/or Reconsideration at 2.

⁶⁹ See UTC Comment on Petitions for Reconsideration/Clarification at 7-9.

⁷⁰ See 47 C.F.R. Part 90.

receive a license under several different services, including the public safety radio service. This understandably has caused confusion.

50. We agree with those parties that suggest that allowing all local government entities such as public power utilities to remain in the band indefinitely will unnecessarily restrict our intent to foster the implementation of services employing new technologies. Our purpose in providing an exemption from mandatory relocation was to ensure that important and essential safety of life and property communications services are not disrupted. As suggested by Omnipoint, our concerns for exempting such facilities from involuntary relocation were directed towards the economic and extraordinary procedural burdens, such as requirements for studies and multiple levels of approvals, that are often necessary to make changes in public safety systems as well as the unique importance of communications involved in the provision of police, fire, and emergency medical services. While our rules ensure that the financial burden of any relocation is placed on the new technology provider, we continue to believe that public safety and special emergency services warrant special protection.

51. At the same time, we agree that the facilities and services that should be afforded such special treatment should be narrowly defined and limited to only those facilities directly used for police, fire, or emergency medical services operations involving safety of life and property. We believe that public safety and special emergency radio service operations that do not meet this criteria do not warrant a special exemption.

52. Accordingly, upon reconsideration we are clarifying that the exemption from involuntary relocation pertains to those Part 94 facilities currently licensed on a primary basis under the eligibility requirements of Section 90.19, Police Radio Service; Section 90.21, Fire Radio Service; Section 90.27, Emergency Medical Radio Service; and Subpart C of Part 90, Special Emergency Radio Services; provided that the majority of communications carried on those facilities are used for police, fire, or emergency medical services operations involving safety of life and property.⁷¹ As an additional safeguard, we will permit current licensees of other Part 94 facilities licensed on a primary basis under the eligibility requirements of Part 90, Subparts B and C, to request similar treatment upon a showing that the majority of the communications carried on those facilities are used for operations involving safety of life and property. As discussed above, we encourage the licensees of all

⁷¹ To the extent some parties believe we are changing, as opposed to clarifying our earlier decision, we think our decision here is in the public interest for the reasons discussed above.

incumbent facilities, including those of exempt public safety services, to voluntarily negotiate and agree to relocation. The requirements for involuntary relocation adopted above and those adopted in the First R&O/Third Notice ensure that relocated entities will be provided with comparable facilities permitting equivalent communications services at no cost to the existing licensees.

Fixed Microwave Licensing Policy

53. In the First R&O/Third Notice, we affirmed the May 14, 1992 Public Notice issued by our staff that stated the Commission's policy on new fixed microwave use and modifications and expansions by existing microwave licensees of the 2 GHz fixed microwave bands.⁷² That policy stated that new 2 GHz fixed facilities will be licensed only on a secondary basis. Existing 2 GHz fixed facilities, licensed before January 16, 1992, are permitted to make modifications and minor extensions and retain their primary status.⁷³ Major extensions or expansions of existing 2 GHz facilities will be permitted only on a secondary basis, unless a special showing of need is made that justifies primary status.

54. This issue was not raised in the petitions for clarification or reconsideration, but is addressed by a number of the commenting parties. Fixed microwave incumbents oppose allowing expansion only on a secondary basis.⁷⁴ They argue that this policy harms existing 2 GHz users with legitimate requirements because incumbent users cannot tolerate harmful interference, and therefore effectively are unable to extend their microwave systems to new or expanded service areas on a secondary basis. On the other hand, our policy on this matter is supported by emerging technology proponents.⁷⁵ They argue that there is adequate spectrum above 2 GHz to meet the future requirements of the existing 2 GHz fixed microwave licensees.

⁷² See "2 GHz Licensing Policy Statement," Public Notice, Mimeo No. 23115, May 14, 1992.

⁷³ This includes facilities licensed on a primary basis in accordance with the May 14, 1992 Public Notice. Acceptable modifications include: minor modifications, changes in antenna azimuth, antenna beamwidth, antenna height, authorized power, channel loading, emission, station location, and ownership or control; reduction in authorized frequencies; or addition of frequencies not in the 2 GHz band.

⁷⁴ See API 23-24 and AAR 21-24.

⁷⁵ See PCNS at 15-16.

55. We are committed to providing spectrum for the development and growth of new services to the American public. Our policy allows for the continued use of the 2 GHz bands by incumbent licensees until the bands are needed by new services and ensures that other suitable bands are available to meet the requirements of the fixed microwave service. Allowing unrestricted fixed microwave growth in the 2 GHz bands would restrict use of these bands in the future by new services. Therefore, we will continue our policy with regard to the future use of the 2 GHz fixed microwave bands by new or existing fixed microwave licensees.

PROCEDURAL MATTERS

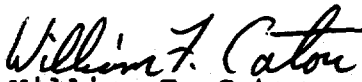
56. Regulatory Flexibility Analysis. The Final Regulatory Flexibility Analysis pursuant to the Regulatory Flexibility Act of 1980, 5 U.S.C. Section 608, is contained in Appendix B.

57. Ordering Clauses. Accordingly, IT IS ORDERED, that the petitions for clarification or reconsideration filed by American Public Power Association, Apple Computer, Inc., Pacific Telesis Group, and the Utilities Telecommunications Council ARE GRANTED to the degree stated above and are DENIED in all other respects.

58. Further, IT IS ORDERED, that Parts 21, 22, and 94 of the Commission's Rules and Regulations ARE AMENDED as specified in Appendix A, effective 30 days after publication in the Federal Register. This action is taken pursuant to Sections 4(i), 7(a), 303(c), 303(g), and 303(r), of the Communications Act of 1934, as amended, 47 U.S.C. Sections 154(i), 157(a), 303(c), 303(g), and 303(r).

59. IT IS FURTHER ORDERED, that this proceeding is TERMINATED.

FEDERAL COMMUNICATIONS COMMISSION


William F. Caton
Acting Secretary

Appendix A: Final Rules

I. Part 21 of Chapter I of Title 47 of the Code of Federal Regulations is amended to read as follows:

1. The authority citation continues to read as follows:

AUTHORITY: Secs. 1, 2, 4, 201-205, 208, 215, 218, 303, 307, 313, 314, 403, 404, 410, 602; 48 Stat. as amended, 1064, 1066, 1070-1073, 1076, 1077, 1080, 1082, 1083, 1087, 1094, 1098, 1102; 47 U.S.C. 151, 154, 201-205, 208, 215, 218, 303, 307, 313, 314, 403, 404, 602; 47 U.S.C. 552.

2. Section 21.50 is amended to read as follows:

§ 21.50 Transition of the 2.11-2.13 and 2.16-2.18 GHz bands from Domestic Public Fixed Radio Services to emerging technologies.

* * * * *

(b) Domestic Public Fixed Radio licensees in bands allocated for licensed emerging technology services will maintain primary status in these bands until two years after the Commission commences acceptance of applications for an emerging technology services, and until one year after an emerging technology service licensee initiates negotiations for relocation of the fixed microwave licensee's operations or, in bands allocated for unlicensed emerging technology services, until one year after an emerging technology unlicensed equipment supplier or representative initiates negotiations for relocation of the fixed microwave licensee's operations.

(c) The Commission will amend the operating license of the fixed microwave operator to secondary status only if the following requirements are met:

(1) The service applicant, provider, licensee, or representative using an emerging technology guarantees payment of all relocation costs, including all engineering, equipment, site and FCC fees, as well as any reasonable, additional costs that the relocated fixed microwave licensee might incur as a result of operation in another fixed microwave band or migration to another medium;

(2) The emerging technology service entity completes all activities necessary for implementing the replacement facilities, including engineering and cost analysis of the relocation procedure and, if radio facilities are used, identifying and obtaining, on the incumbents' behalf, new microwave frequencies and frequency coordination; and

(3) The emerging technology service entity builds the replacement system and tests it for comparability with the existing 2 GHz system.